

The Township of McGarry Water and Wastewater Systems Quarterly Operations Report

January 1 to March 31, 2026

SUBMITTED BY

Ontario Clean Water Agency
15 Government Road East
Kirkland Lake, ON P2N 3J5

May 14, 2026, Rev. 0

Prepared by the Ontario Clean Water Agency

SYSTEM OVERVIEW**January 01 to March 31, 2026****HIGHLIGHTS**Virginiatown-Kearns Drinking Water System

- Looking at the Langelier Index, which is an indicator of corrosivity, through jar testing which will guide process changes at the plant. We have recommended they install a corrosion control system in order to reduce the negative impacts to infrastructure. Adjusting the pH of the water could save the township a significant amount of money and time in water main repairs and replacement.

McGarry Wastewater Treatment Lagoon

- Leakages and cracks around control gates in-between lagoon cells and outfall chamber are causing short-circuits effecting laboratory results on effluent quality. Corrective maintenance is planned and scheduled in coordination with township workers/supervisors.

CAPITAL PLAN PROGRESS

The Capital Letter which provides a list of recommended capital and major maintenance for 2026 was provided to the Owner in December 2025. Approval or rejection of the capital projects identified in the letter is a requirement under the system's Quality and Environmental Management System.

Status of capital work for this quarter of 2026 is available through OCWA's Senior Operating Manager.

Capital	Status
Minor Capital	We are performing work required to keep the plant in operation.
All other capital items	Proceeding with approved items

INCIDENTSVirginiatown DWS:

- February 20, 2026 AWQI #171631 There was a watermain break on 30th Street, isolation valve was shut on the corner of 27th Avenue and 30th Street. As a result the water was shut off to 12 houses. Repair of the 6 inch cast watermain ongoing.
- March 17, 2026 Two (2) total coliforms were detected in a distribution sample collected at 18 - 30th Street(upstream) in the Virginiatown distribution system. The sample was collected on February 20th at 2:51PM. Free chlorine residual = 1.2 mg/L
- The sample was collected after a category 2 watermain break repair. A precautionary boil water advisory was issued by the local Health Unit for 12 homes affected by a loss of pressure on February 20th, 2025. (AWQI 171631)
- Reported lately due to internal miscommunications

McGarry Lagoon:

January 2026 ECA Effluent Exceedance (SAC#: 1-Q7QQ3F): TAN Results: January 08 = 5.14, January 15 = 6.08, January 22 = 5.79, January 29 = 5.95, The Effluent **did not** exceed monthly TAN loading limit of 5.7 kg/day (= 2.54 kg/day). The elevated concentrations are attributed to reduced lagoon treatment efficiency resulting from cold weather conditions and ice accumulation over the lagoon cells.

February 2026 ECA Effluent Exceedance (SAC#: 1-QADK0N): TAN Results: February 05 = 7.23, February 12 = 6.35, February 20 = 7.09, February 26 = 6.75, The Effluent **did not** exceed monthly TAN loading limit of 5.7 kg/day (= 2.72 kg/day). The elevated concentrations are attributed to reduced lagoon treatment efficiency resulting from cold weather conditions and ice accumulation over the lagoon cells.

March 2026 ECA Effluent Exceedance (SAC#: 1-QH88G2): TAN Results (mg/L): March 5 = 7.03, March 12 = 7.39, March 19 = 7.14, March 26 = 7.28. TAN Average monthly Loading Results: March 2026 = 6.54 kg/d, $[(\text{TAN Average}) * (\text{Monthly Average Effluent discharge}) / 1000 = \text{Tan Loading}]$ $[7.21 \text{ (mg/L)} * 907.1 \text{ (m}^3\text{/d)} / 1000 = 6.54 \text{ kg/d}]$. TP Results: March 5 = 0.425, March 12 = 0.488, March 19 = 0.582, March 26 = 0.594, The Effluent **did not** exceed monthly TP loading limit of 0.6 kg/day (= 0.474 kg/day).

COMPLAINTS

No complaints were documented this quarter.

CALL-OUT SUMMARY

Number of Call-outs this Quarter:	0
Total Call-outs to Date (2026):	0
Annual Call-out Allowance:	8
Details of the Call-outs:	Refer to Appendix B for a call-out summary, if applicable

Note: Not all call backs are billed to the Owner; depends on the nature of the call.

REGULATORY

Inspections

- There were no inspections during this quarter.

Quality & Environmental Management System (QEMS)

- No Internal or External audits were performed during this quarter.

Sampling, Testing and Monitoring

- Refer to Appendix B for Quarterly Data Summaries.

Reporting

- First quarter ECA exceedances for the McGarry Lagoon were reported to all required parties in accordance to legislative requirements.

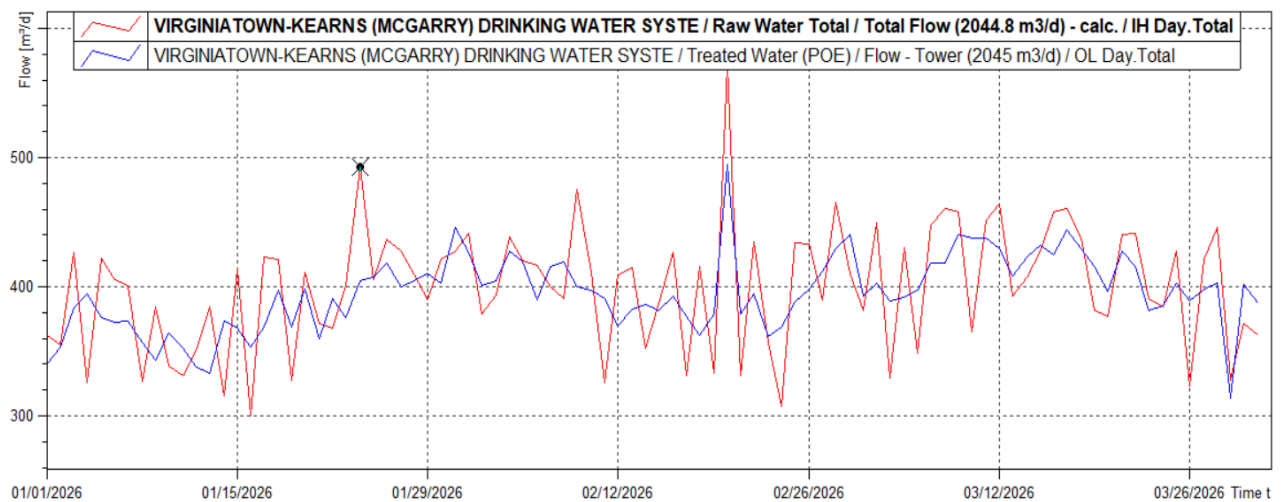
FLOW SUMMARIES

Virginiatown-Kearns Water Treatment Plant (Tower Flows)

	Total Raw Flows (m ³)	Total Treated Flows (m ³)	Average Daily Treated Flow (m ³ /d)	Maximum Treated Flow (m ³ /d)
January	11981	11728	378	445
February	11287	11149	398	494
March	12677	12674	409	443
Compliance	-	-	-	2,045

Raw Flow versus Treated Flow

January 1 to March 31, 2026

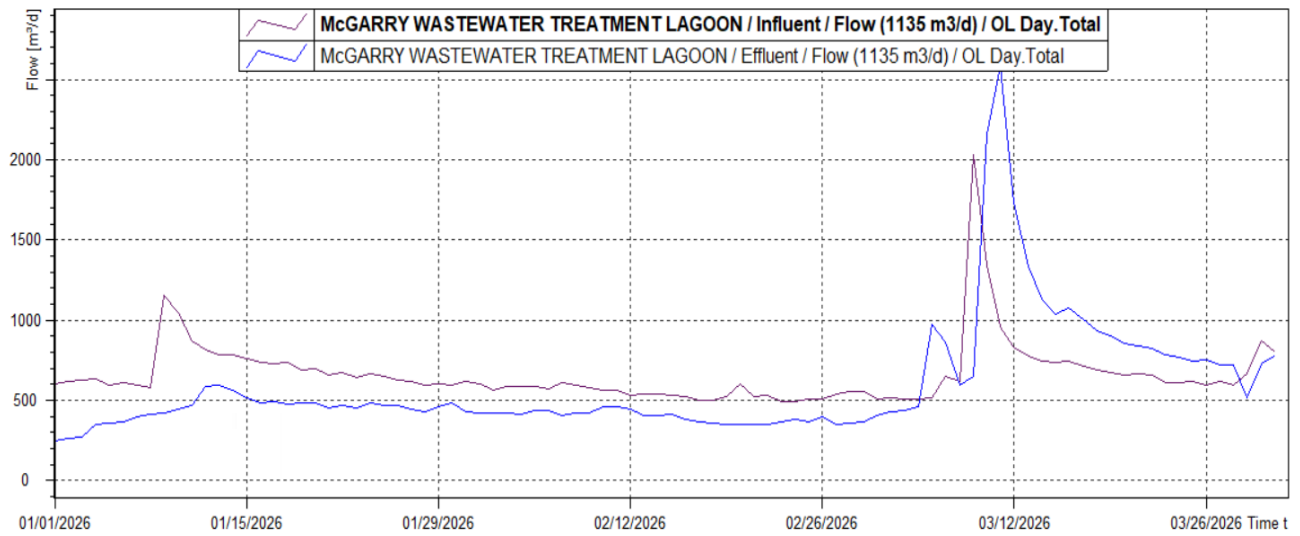


McGarry Lagoon

Year	Total Effluent Flow (m ³)	Total Influent Flow (m ³)	Maximum Influent Flow (m ³ /d)	Average Daily Influent Flow (m ³ /d)
January	13726	21613	1157	697
February	11117	15349	610	548
March	28120	22576	2029	728
Compliance	-	-	-	1,135

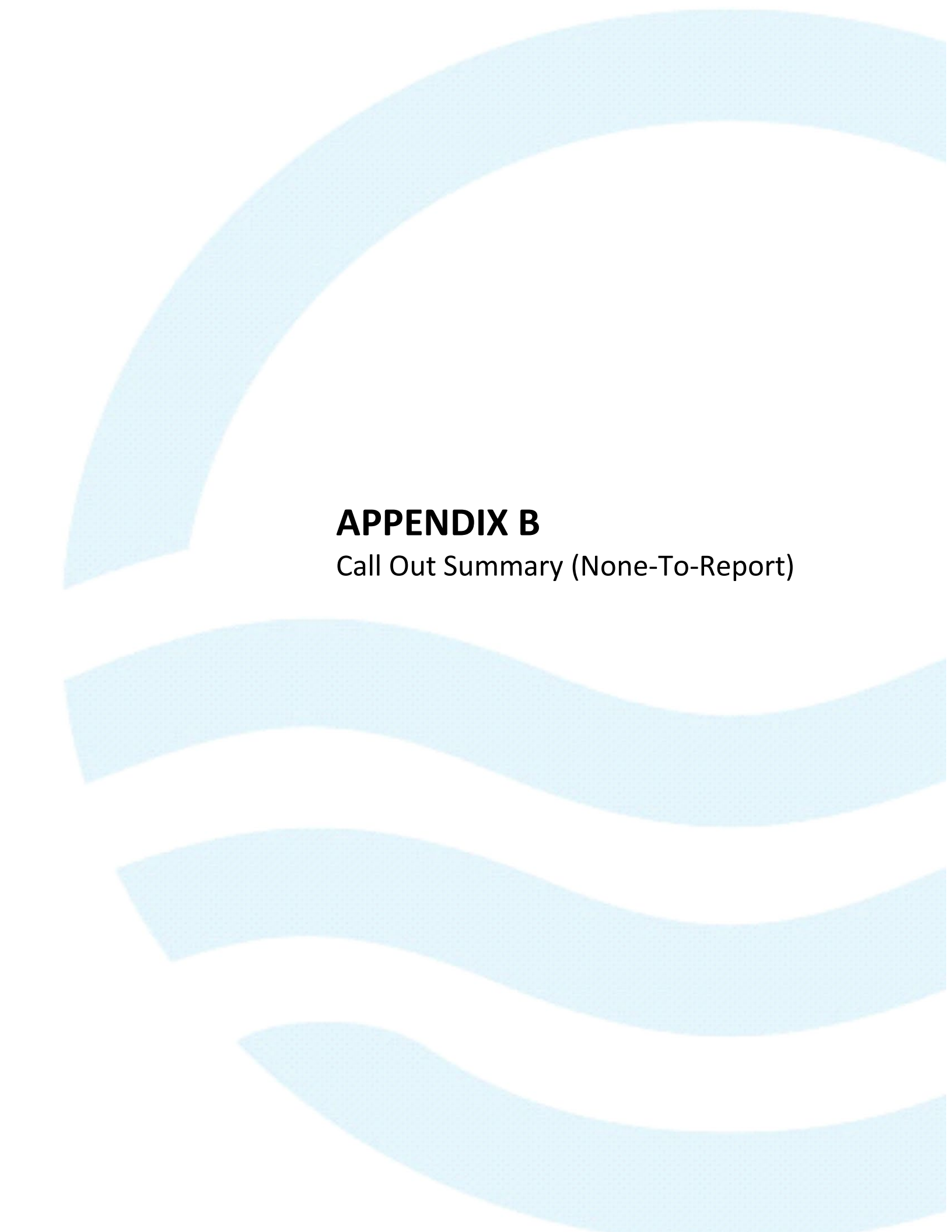
Influent Flow verses Effluent Flow

January 1 to March 31, 2026



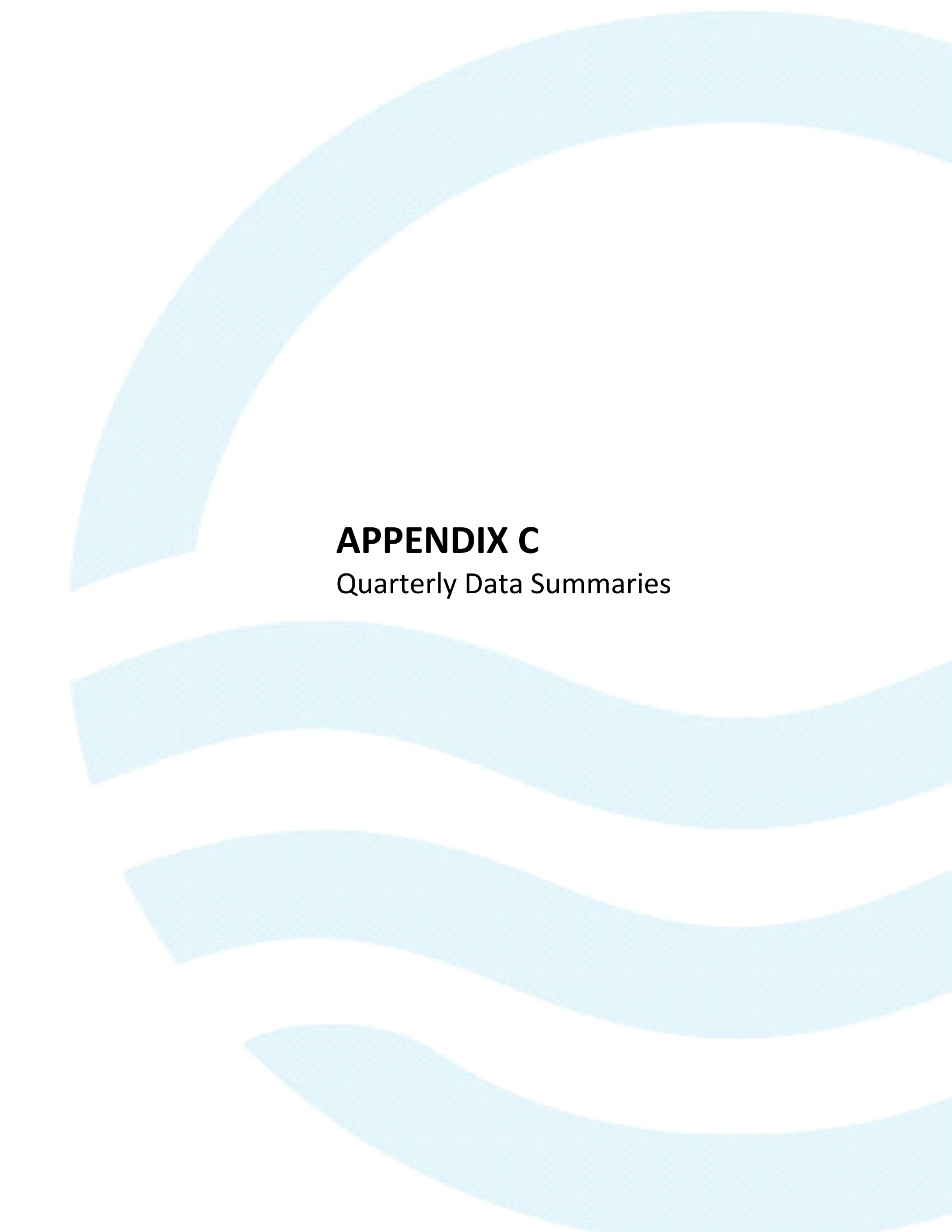
HEALTH AND SAFETY

- All safety equipment at the plant was checked monthly to ensure that they are in good working order.
- Health and Safety Training/Sessions completed this quarter include:
 - ✓ WHIMS
 - ✓ Conducting OHSA Workplace Inspections
 - ✓ Working with Chemicals



APPENDIX B

Call Out Summary (None-To-Report)



APPENDIX C

Quarterly Data Summaries

VIRGINIATOWN-KEARNS (McGarry) DRINKING WATER SYSTEM

Quarterly Data Report

Q1: January 1 to March 31, 2026



Virginiatown-Kearns Drinking Water System		January	February	March	Compliance
Flows					
Total Raw Flow - Max. Daily Volume	m ³ /d	493	572	464	Max. = 2044.8
Well 1 Flow - Maximum Daily Volume	m ³ /d	433	572	464	Max. = 2044.8
Well 1 Flow - Maximum Flow Rate	L/min	1862	1399	1944	Max. = 1420
Well 2 Flow - Maximum Daily Volume	m ³ /d	161	114	124	Max. = 1500
Well 2 Flow - Maximum Flow Rate	L/min	28	25	20	Max. = 1105
Tower Flow - Maximum Daily Volume	m ³ /d	446	494	444	Max. = 2045
Raw Water					
Well 1 Total Coliforms - Maximum	c/100mL	0	0	0	N/A
Well 1 <i>E.coli</i> - Maximum	c/100mL	0	0	0	N/A
Well 2 Total Coliforms - Maximum	c/100mL	0	0	0	N/A
Well 2 <i>E.coli</i> - Maximum	c/100mL	0	0	0	N/A
Well 1 Turbidity - Maximum	NTU	0.63	0.60	0.77	N/A
Well 2 Turbidity - Maximum	NTU	1.12	1.52	4.72	N/A
Treated Water					
Free Chlorine Residual - Minimum	mg/L	0.53	1.10	1.15	Min. = 0.10 (CT) ¹
Total Coliforms - Maximum	c/100mL	0	0	0	Max. = 0
<i>E. coli</i> - Maximum	c/100mL	0	0	0	Max. = 0
Nitrate	mg/L	0.08	-	-	Max. = 10
Nitrite	mg/L	<0.05	-	-	Max. = 1
Distribution Water					
Free Chlorine Residual - Minimum	mg/L	0.39	0.82	0.78	Min. = 0.05
Total Coliforms - Maximum	c/100mL	0	0	0	Max. = 0
<i>E. coli</i> - Maximum	c/100mL	0	0	0	Max. = 0
Trihalomethanes (THMs)	µg/L	2.90	-	-	N/A
Running average	ug/L	3.4	-	-	Max. = 100 µg/L ²
Haloacetic Acids (HAAs)	µg/L	8	-	-	N/A

VIRGINIATOWN-KEARNS (McGarry) DRINKING WATER SYSTEM

Quarterly Data Report

Q1: January 1 to March 31, 2026



Virginiatown-Kearns Drinking Water System		January	February	March	Compliance
Running average	ug/L	8.3	-	-	Max. = 80 µg/L ³
Lead – Maximum	µg/L	2025/26	-	-	Max. = 10 µg/L ⁴
Alkalinity - Maximum	mg/L	-	-	-	N/A ⁵

Notes:

- ¹ CT is the concentration of chlorine in the water times the time of contact that the chlorine has with the water. It is used to demonstrate the level of disinfection treatment in the water. CT calculations are performed for the Virginiatown-Kearns water plant if the free chlorine residual level drops below 0.10 mg/L to ensure primary disinfection is achieved. Primary disinfection was achieved this quarter.
- ² Maximum Allowable Concentration (MAC) for Trihalomethanes (THMs) = 100 ug/L (Four Quarter Running Average).
- ³ Maximum Allowable Concentration (MAC) for Haloacetic Acids (HAAs) = 80 ug/L (Four Quarter Running Average).
- ⁴ Lead testing required every 3 years.
- ⁵ Alkalinity testing required twice per year. Sampling is done in March/April and September/October of each year.

McGARRY WASTEWATER SYSTEM

Quarterly Data Report

Q1: January 1 to March 31, 2026



McGarry Waste Water System		January	February	March	Compliance
Flows					
Influent – Average Daily Flow	m ³ /d	697	548	728	Average = 1135
Influent – Maximum Daily Flow	m ³ /d	1157	610	2029	N/A
Effluent – Average Daily Flow	m ³ /d	443	397	907	Average = 1135
Effluent – Maximum Daily Flow	m ³ /d	592	460	2587	N/A
Influent					
BOD ₅ – Average	mg/L	3.10	2.30	4.80	N/A
Total Kjeldahl Nitrogen (TKN) – Average	mg/L	2.70	2.30	4.80	N/A
Total Phosphorus (TP) – Average	mg/L	0.13	0.24	0.22	N/A
Total Suspended Solids (TSS) – Average	mg/L	0.67	1.00	2.00	N/A
Effluent					
cBOD ₅ – Average	mg/L	6.60	5.73	9.23	Monthly Average = 25
cBOD ₅ Loading	kg/d	3.14	2.35	9.05	Monthly Average = 28.4
TSS – Average	mg/L	2.49	5.69	3.57	Monthly Average = 25
TSS Loading	kg/d	1.20	2.46	3.26	Monthly Average = 28.4
TP – Average	mg/L	0.45	0.39	0.52	Monthly Average = 0.5
TP Loading	kg/d	0.21	0.16	0.50	Monthly Average = 0.6
Total Ammonia Nitrogen (TAN) – Average	mg/L	5.74	6.86	7.21	Monthly Average = 5
TAN Loading	kg/d	2.68	2.77	6.99	Monthly Average = 5.7